



# INSIGHT

December 1994  
Issue 6

## PRESIDENT'S CORNER

George Friedman

What a rapid year this has been! It seems as if it was just last week that Brian Mar turned over NCOSE's presidency to me at our January business meeting in Los Angeles. Just as I'm warming up to the task, it appears that this will be my final President's Corner in the NCOSE Newsletter. As I exit this phase of my relationship with you, it's perhaps appropriate to share some of my joys and disappointments.

A major joy revolves about the continued increase in three important quantitative measures of the success of any organization: the membership, the attendance at our annual symposium, and our financial reserves. The membership is now well over 2000 and I continue to sign new certificates. And, we can now truly take pride in being an international organization since we have just approved the establishment of a local chapter in the United Kingdom. We drew over 700 interested and enthusiastic folks to our San Jose symposium — of all the many professional societies I'm associated with, this is the only one not in sharp decline. Our financial position is stronger than ever before and we can now afford to sponsor worthy activities, such as symposia, without having to share the investment and returns with a partner. These marks are a far cry from our 1991 meeting in Chattanooga, where less than one hundred of us, with zero in the bank, shared our first symposium with the American Society of Engineering Management!

Another joy involves the set of qualitative accomplishments that, I believe, are responsible for the quantitative improvements listed above. Our reputation and relationships with the government, industry, academia and other societies who have an interest in systems engineering are growing substantially. The new structure of the technical board has added a top-down perspective to the previous bottoms-up organization. We have launched a peer-reviewed professional journal which paves the way for the establishment of systems engineering as a formally recognized branch of engineering. Although surprised by DOD's decision regarding MIL-STD-499B this past spring, we jumped into the vacuum, and we are a player in the new commercial standard that is being established. Even deeper joys that I have already mentioned several times are the continued enthusiasm, dedication, and idealism that are present at every meeting.

My disappointments are fewer and, I hope, less significant than the joys. With our explosive growth came some growing pains including membership management, communication between local chapters and national headquarters, inter- and intra-working group interactions, and the authority and responsibility relationships between the committees, the elected officers, and the executive director. In many instances, we

added more resources from our financial reserves to help solve the problems; in other cases we changed or added assignments.

Although I feel that most of the identified problems are converging on a solution, some of them still need more attention and corrective action. Jim Brill and I established an audit team to examine all organizational and management problem areas and to recommend required actions. This team will constructively steer us into our next growth phase as well as provide a smooth transition from my presidency to Jim's.

There is one disappointment that troubles me more deeply than all the others. It is the spectator attitude taken by 80% of our membership. The little gang that met in Chattanooga was well over 80% participating! NCOSE's total membership has increased over twenty-fold but the truly active population only tripled. Most alarming, the spectator behavior includes most of our members not bothering to vote. In short, I believe the greatest danger to NCOSE's continued health is that a small group of activists are taking two or three duties each, while the vast majority of the membership is just watching and not even involved in the easiest dimensions of participation. Get active! Make a difference! Your return will far outweigh your investment.

With my deepest thanks for support and friendship, and with my exhortations to get more involved, I bid farewell to one of the most challenging and rewarding years of my life.

## Winter Business Meeting

The 1995 Winter Business Meeting will be held in Houston, Texas, January 24-27. The Texas Gulf Coast Chapter, with Ken Zingrebe chair, is our host for the four days. This annual meeting is dedicated to the activities of the technical working groups, the administrative committees, and the Board of Directors.

The installation of Officers and Directors is the primary focus for the dinner that kicks off this event. During the remaining three days, the working groups and committees will conclude their activities for 1994, define new goals, and plan their tasks for 1995. It is also an opportunity for committee members to interact face-to-face. The Board of Directors and Officers will review the status of the organization, and establish policy and direction for the coming year.

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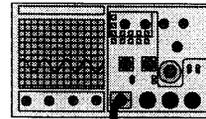
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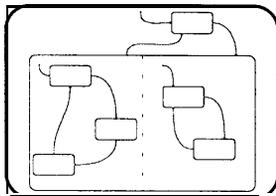
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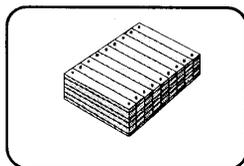
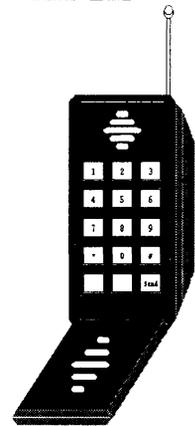
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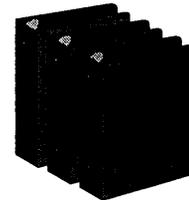
through behavioral modeling  
to prototype 'panels' that let  
you validate before you build.

```
void exec_RUN_STATE()
{
  switch (RUN_STATE_isin) {
  case RUN_DISP :
    if (LAP-CLEAR) {
      notify(scope_id,conRUN_DISP,FALSE);
      setc(&LAP,TRUE);
      notify(scope_id,conSTOP_DISP,TRUE);
      RUN_STATE_isin = STOP_DISP;
    }
  }
}
```

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# NCOSE COMMITTEES and BOARDS

## Technical Board

Eric Honour, Chair

The Technical Board, while continuing to define its role within NCOSE, has started to manage the technical efforts of the organization. Six members are also ex officio chairs of the six Technical Committees. As such, these members have become responsible for coordinating the working group efforts with symposia, this newsletter, the Systems Engineering Journal, and other functions.

The Technical Committee chairs have been the focal points for review of papers for the 1995 symposium. The symposium committee distributed the papers; the chairs formed review panels within each technical area. By the time this copy of *INSIGHT* is published, the review will be complete, with results back to the symposium committee.

The chairs are also coordinating a Systems Engineering 101 tutorial for the 1995 symposium. This day-long session will precede the symposium. It is aimed at new members or those who wish to synchronize their terminology and knowledge with the mainstream of NCOSE. The content will be based on the working groups and technical committees, but will be a cohesive and comprehensive presentation of the full systems engineering scope.

The Technical Board itself is preparing for the winter business meeting in Houston, with plans to further its administrative processes. We are currently discussing how to start new working groups and interest groups, how to coordinate products with the Journal, and how to appoint vital members of the technical organization.

## Communications Committee

Sarah Sheard, Chair

The communications committee is trying to ensure that all NCOSE members and officers have the tools they need to communicate with the rest of NCOSE. Part of this communication includes a good newsletter; this is the second issue put out by our new newsletter editor, Valerie Gundrum, with the help of the rest of the communications committee and the authors who graciously sent Valerie all this valuable input.

In addition we are establishing an electronic mail network. NCOSE members can be included in an e-mail directory by sending an e-mail message to [m138022%SLRC1.decnat@mdcgwy.mdc.com](mailto:m138022%SLRC1.decnat@mdcgwy.mdc.com), including your phone numbers (office and home), fax numbers, membership number, and e-mail address. Periodic updates are sent to those with e-mail addresses on the list. Using this directory, those

connected to the internet should be able to contact other NCOSE members rapidly and easily. Those who do not have e-mail may be listed by faxing the other information to Bill Schoening at (3 14) 777- 1139.

A second effect of having an e-mail directory is that we can develop the capability to communicate rapidly and economically from the National level to all members. This capability is being implemented by having each chapter identify an e-mail point of contact (POC) who will be responsible for maintaining a distribution list of all chapter members and for forwarding information from Bill Schoening or from National, as requested. Please let Bill know who your chapter e-mail POC is if you haven't already. Bill will send you the e-mail addresses for members in your chapter from the national list.

A longer-term effort involves establishing an NCOSE presence on the World Wide Web. Pat Hale is developing a proposal to present to the Board of Directors in January.

We will also be surveying members to determine what other communications needs they have that are not being met. If you have any concerns please voice them to me and we will relay them on to the Board. Thank you. (Sarah Sheard, [sheardsarah@lfs.loral.com](mailto:sheardsarah@lfs.loral.com), (301) 493-1065.)

*Editor's Note* In the September issue, Suzanne Garcia's name should have been noted as a co-author of the Outstanding Paper Presentation Winners. Track 1

## **INSIGHT information**

This publication is a product of the Communications Committee, part of the National Council On Systems Engineering (NCOSE)

Editor Valerie Gundrum Contributing editors include Ellen Barker, Pat Hale, Terry Robar, James Sanchez, Sarah Sheard, Bill Schoening, George Vlay (Thanks for your help!)

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# WORKING GROUPS

## Emerging Applications

Rich Mintz, Chair

After a period of inactivity (dare I say recovery?) following our productive meetings in San Jose, the Emerging Applications Working Group is back at work preparing for its next set of meetings at the Winter Business Meeting in Houston. Our group is somewhat unique in NCOSE, as it includes systems engineering practitioners in areas not traditionally linked to NCOSE. Our charter is: The Emerging Applications Working Group promotes the application of systems engineering to the cost-effective development/management of commercial/civil systems and issues.

Our agenda for Houston consists of three major items:

1. Review and comment on Draft 2 of the Emerging Applications White Paper in anticipation of the paper's release in St. Louis.
2. Discuss the working group's response to our CAB action item.
3. Discuss changes in the the direction and leadership of the Working Group.

Contact Rich Mintz (rmintz@scitor.com) if you want to be added to our mailing list.

## Benchmarking

Jerry Fisher & Jack Fisher, Co-Chairs

The Benchmarking Working group is relatively new. Its charter has six key elements:

1. Promote the effective benchmarking of the systems engineering process.
2. Facilitate contacts between organizations interested in benchmarking their systems engineering efforts.
3. Promote papers on benchmarking at NCOSE symposiums.
4. Sponsor a benchmarking session at the annual Winter Business Meeting.
5. Provide members with information on available benchmarking and training resources.
6. Provide assistance with the benchmarking process.

Our major accomplishment for 1994 was the benchmarking of the systems engineering process. There were 21 NCOSE member companies (40 branches) that participated. Some interesting facts were discovered and we learned several lessons about the design of surveys. We have gone back to those participants and asked them how we can improve the process. The results of this survey will be presented at the Winter Business Meeting. Our near-term objective is to develop a formal working relationship with the Metrics, Process, and Capability Assessment Working Groups to ensure future benchmarking surveys provide **useful** results. We hope to develop our next

survey jointly and to evolve the process in the future. We solicit and welcome your participation in the Benchmarking Working Group at the Winter meeting. Help us shape to future of systems engineering. If you are interested, please contact Jerry Fisher, (703) 367-3369, [gfisher@lfs.loral.com](mailto:gfisher@lfs.loral.com).

## SE Process WG is Requesting Your Input!

Dick Wray, [wrayrb@aol.com](mailto:wrayrb@aol.com)

The August Symposium Proceedings, Volume 2, has the SEPWG baseline paper published in it. SEPWG members and any interested NCOSE members are encouraged to respond to this baseline by filling in the ballot attached to the paper and either mailing or e-mailing it to Dick Wray for voting. The e-mail address is: [wrayrb@aol.com](mailto:wrayrb@aol.com), or call 713-334-5387 for more information. It is strongly suggested to any members who care what the SE Process is to be, that they complete the ballot in order to provide feedback and guidance to the SEPWG.

## Standards and Handbooks

Jerry Lahe

NEWS FLASH! **MIL-STD-498** (Software Development and Documentation, with 22 DID's) was signed out by OSD as an approved standard on November 4. An November 8 letter implemented 498 as a two-year interim standard. It is anticipated that it will be replaced in 1995 or 1996 by a commercial equivalent through a joint effort of EIA, IEEE, NCOSE, and others.

In spite of Secretary of Defense William Perry's memo of June 29, 1994, which implemented the Blue Print for Change Report on Specifications and Standards, it has been asserted that a waiver will not be needed to use 498 on a contract. Industry (at least EIA and members of AIA) is unhappy with the approval of 498. Letters have been sent to Pentagon officials by industry representatives expressing their deep concern and objections to the DoD issuing 498 in any form. They are attempting to get the decision reversed because "it is contrary to the vision" of the Blue Print for Change.

**EIA IS 632** (formerly MIGSTD-499B) Ballots were sent to the 40 members selected to form the NCOSE Systems Engineering Standards Committee. This committee, representing a cross-section of NCOSE membership, included: 17 Chapter Presidents, five officers of the Council, 10 Regional Directors on the Board of Directors, one Director-at-Large, one Corporate Advisory Board representative to the Board of Directors, one Executive Director, and five Standards and Handbook Working Group members. Three of the ballots were for non-approval with comments, two for approval, and 12 for approval with comments. In addition, two Corporate Advisory Board representatives submitted ballots — both were for approval.

The Standards and Handbook Working Group (SHWG)

EIA IS 632 committee, led by Dusty Rhoads, evaluated comments sent in with ballots. Based on the return ballots, the 632 SHWG committee recommended approval with comments. Ballot comments were condensed down to 34, with 10 essential and 24 editorial comments for clarity, correctness, readability, or completeness. Jerry Lake, the NCOSE Liaison, delivered the NCOSE ballot to the joint EIA, AIA, NSIA, NCOSE, DoD 632 working group on November 15, 1994. All participating associations (AIA, EIA, NCOSE, and NSIA)

approved the standard. You can anticipate the publication of this interim standard in mid- to late-December (THIS YEAR!).

The SHWG, with EIA and IEEE, will start work during the January 1995 Business Meeting toward merging 632 and IEEE P1220 in order to publish a single, joint systems engineering standard in 1996. The plan is that this joint standard and the commercial equivalent to 498 will be merged into a single system-software standard sometime beyond 1997.

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## C A L E N D A R of E V E N T S

### January

**9** - Los Angeles Chapter Ad Hoc meeting  
 Topic Chapter Planning meeting  
 Place/Time Aerospace Corporation, 6-7:30 PM  
 Contact Susan Jones, (310) 336-8576, jones@courier10.aero.org

**10** - San Francisco Bay Area Chapter meeting  
 Speaker Mark Robmson, GTE  
 Topic "Systems Engineering — It's More Than Just a Process"  
 Place/Time Loral Cafeteria, Crossman at Java/Fairoaks, 5:30 PM social, 6-7 PM presentation/questions  
 Contact R Olson, (415) 966-3524, olsonr@gtewd.mtv.gtegs.com

**11** - Washington Metropolitan Area Chapter meeting  
 Speaker Dennis Buade, Ascent Logic Corporation (ALC)  
 Topic "Touchy Feely Numbers in Systems Engineering"  
 Place/Time ALC Auditorium, Vienna VA, 6:30 PM  
 Contact Joe DeFoe, (301) 493-1451, defoej@lfs.loral.com

**12** - New England Chapter meeting  
 Speaker Dr John Ehrenfeld, MIT Center for Technology, Policy, and Industrial Development  
 Topic "Challenges Faced by Large Environmental Clean-Up Sites"  
 Place/Time Mitre Corporation (time not provided)  
 Contact Brian McCay, (617) 271-5727, bmccay@mitre.org

**24-27** - NCOSE Mid-Year Business Meeting, Houston

**26-27** - Society of Logistics Engineers (SOLE) Conference  
 Theme Specifications and Standards in Transition  
 Place Hyatt Regency, Crystal City, VA  
 Contact Amy Spiegel, (301) 459-8446, or Fax (800) 695-7653

### February

**14** - San Francisco Bay Area Chapter meeting  
 Speaker Roy Pettis, LMSC/SSD  
 Topic "Systems Engineering After PDR"  
 Place/Time. Loral Cafeteria, Crossman at Java/Fairoaks, 5:30 PM social, 6-7 PM presentation/questions  
 Contact R Olson, (415) 966-3524, olsonr@gtewd.mtv.gtegs.com

**15** - Washington Metropolitan Area Chapter meeting  
 Speaker/Topic TBD  
 Place/Time TBD  
 Contact Joe DeFoe, (301) 493-1451, defoej@lfs.loral.com

**28** - Los Angeles Chapter Formation Meeting  
 Speaker. George Friedman  
 Topic First Membership meeting  
 Place/Time: JPL Von Karman Auditorium, 5:30 PM social, 6-7 PM meeting  
 Contact Susan Jones, (310) 336-8576, jones@courier10.aero.org

### March

**14** - Washington Metropolitan Area Chapter meeting  
 Speaker. TBD  
 Topic "The Internet and What It Can Do For You"  
 Place/Time TBD, 6:30 PM  
 Contact Joe DeFoe, (301) 493-1451, defoej@lfs.loral.com

**14** - San Francisco Bay Area Chapter meeting  
 Speaker John Bonds, ESL  
 Topic "Systems Engineering for Commercial Applications"  
 Place/Time. Loral Cafeteria, Crossman at Java/Fairoaks, 5:30 PM social, 6-7 PM presentation/questions  
 Contact R. Olson, (415) 966-3524, olsonr@gtewd.mtv.gtegs.com

### April

**11** - Washington Metropolitan Area Chapter meeting  
 Speaker/Topic: TBD  
 Place/Time TBD  
 Contact Joe DeFoe, (301) 493-1451, defoej@lfs.loral.com

### May

**9** - Washington Metropolitan Area Chapter meeting  
 Speaker/Topic, TBD  
 Place/Time TBD  
 Contact Joe DeFoe, (301) 493-1451, defoej@lfs.loral.com

### June

**13** - Washington Metropolitan Area Chapter meeting  
 Speakers Authors who are presenting papers in the NCOSE Symposium in St Louis  
 Place/Time TBD  
 Contact Joe DeFoe, (301) 493-1451, defoej@lfs.loral.com

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## NCOSE Technical Committees and Working Groups

### Technical Board

**Chair:** Eric Honour, (407) 242-5 192, ehonour@harris.com  
**Members:** Larry Pohmann, Jerry Lake, Jim McAuley, George Vlay, Dorothy McKinney, Paul Gartz, Brian McCay, Fred Martin

### Emerging Applications Technical Committee

Co-Chairs: Rich Mintz, Fred Martin

#### *Emerging Applications Working Group*

Chair: Rich Mintz, (206) 394-4820, rmintz@scitor.com

#### *Resource Management Working Group*

Chair: Fred Martin, (4 15) 323-40 19,  
frances@psych.stanford.edu

### Measurement Technical Committee

Chair: Paul Gartz, (206) 237-0998,  
garte00@ccmail.ca.boeing.com

#### *Benchmarking Working Group*

Jerry Fisher, (703) 367-3369, gfisher@lfs.loral.com  
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#### *Best Practices Working Group*

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Jim Ray, (314) 263-1 100, amsatre@st-louis-emh7.army.mil

#### *Capability Assessment Working Group*

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#### *Metrics Working Group*

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Donna Rhodes, (607) 75 1-6102, dhrhodes@lfs.loral.com  
Bill Miller, (201) 386-5339, wdm@hogpa.ho.att.com

### Tools and Automation Technical Committee

**Co-Chairs:** Brian McCay, (617) 271-5727, Roger Cook

#### *Tools Database Working Group*

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#### *Tools Integration and Interoperability Working Group*

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carolyn@ulabsgi.gsfc.nasa.gov

#### *Tools Taxonomy Working Group*

Dave Oliver, (5 18) 387-6458, oliverdw@crd.ge.com

### SE Development Technical Committee

Jim McAuley, (301) 240-6210, mcauleyj@lfs.loral.com  
Julian Holtzman, (913) 864-7759,  
holtzman@cecace.ukans.edu

### SE Management Technical Committee

Co-Chairs: George Vlay, Rick Harwell

#### *Concurrent Engineering Working Group*

Michael Dick, (6 19) 549-3396, mdick@ucsd.edu

#### *Integration and Interfaces Working Group*

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pettis\_roy@mm.ssd.lmsc.lockheed.com  
Maureen Dougherty, (206) 662-23 11

#### *Requirements Management Working Group*

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#### *Risk Management Working Group*

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#### *Standards and Handbooks Working Group*

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Dusty Rhoads, (703) 416-3597, rhoadsd@anser.org

#### *Configuration Management Working Group*

Randy Stafford, (303) 973-278 1, stafford@alc.com

### SE Processes and Methods Technical Committee

**Co-Chairs:** Dorothy McKinney, Dick Wray

#### *MIL-STD-499B Handbook Working Group*

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For Additional Information - Contact Jim **Brill (408) 372-2473; (408) 647-9154 (FAX)**  
Post Office Box 1050, Pebble Beach, California 93953

# LOCAL CHAPTER NEWS

## Seattle Metropolitan

Art Morrison

In 1994, SMC established bi-monthly meetings that have included a variety of technical presentations by guest speakers, a panel discussion on SE terms, and a preview presentation of the symposium papers. Additionally, our technical committee has prepared a composite list of SE terms from a multitude of sources. SMC is also in the process of utilizing electronic mail as a significant communication link to our membership.

Recent events include our October chapter meeting that featured an excellent introduction to Quality Function Deployment (QFD) presented by Dr. Tom Greene. The presentation provided an end-to-end overview of the QFD process using an automotive industry example. SMC completed 1994 with a dinner meeting on December 8 that featured guest speaker Kerry Manos from Hughes Aircraft Company. The topic was using systems engineering to save time and money, covering experience in applying systems engineering to commercial and defense applications, including international assignments

SMC recently held elections for 1995 officers. Congratulations go to:

Ken Peterson, SMC President  
Bob Coyne, Vice President  
Cho Shimizu, Treasurer  
Teresa Karupiah, Secretary  
Mike Brendel, Director  
Jim Truitt, Director

Specific SMC plans for 1995 will be established by our newly elected board early next year.

## Liberty

Bill Miller

The Liberty Chapter (NJ/NY/PA) held two successful programs this fall and a Holiday Dinner Program on Wednesday, December 14. Also, elections for 1995 Officers and Directors were held in December.

The first program was held Tuesday, October 11, 1994, at Allied Signal, Teterboro, NJ. The guest presenter was Brian M. McCay, Ph.D., The MITRE Corporation, Bedford, MA, and president of the New England Chapter. Thirty-three people attended the program. Brian's topic was "Use and Design of An Architectural Model in the Real World." He talked about the techniques used to build and extract information from an architecture model of an as-built system-of-systems. He also discussed how architecture model information is being used to identify potential cross-system impacts due to proposed changes. The overall goal is to provide guidance to systems engineers to enable them to successfully develop useful models that support the controlled evolution of a system-of-systems architecture. We thank

AlliedSignal for hosting the October program and providing hot hors d'oeuvres for the social hour.

The second program was held Thursday evening, November 10, 1994, at the Officers' Club, Picatinny Arsenal, Dover, NJ. Attendance was 32 people. George J. Friedman, Ph.D., NCOSE President and Retired Corporate Vice President, Northrop Corporation, presented "Risk Management: A Unique Approach." Dr. Friedman talked about the quantitative techniques used to identify and manage risks that may have a small probability of occurrence, yet may have catastrophic effects on a system if the event occurs. He illustrated the methodology with an interesting, relevant application — the consequences of a meteor or asteroid collision with the earth. Dr. Friedman talked about the costs and development interval to implement a risk mitigation plan. The methodology of risk management has great significance today whether the system is a commercial aircraft, environmental clean-up of nuclear material manufacturing sites, or the complex communications linking our world. We thank Picatinny Arsenal for hosting the program and providing use of their fine Officers' Club for the social hour and program.

The 1994 Holiday Dinner Program was scheduled for the evening of Wednesday, December 14. We celebrated the end of a successful 1994 for the Liberty Chapter! The chapter has grown to over 100 members with several members having prominent responsibilities in the national organization in both administrative and technical areas. We reviewed some of the highlights from 1994, previewed plans for 1995, and announced the results of the chapter elections for 1995 officers and directors.

## New England

Pat Hale

The initial '94-'95 New England chapter meeting was hosted by Draper Laboratory in Cambridge, MA, on October 20. Mr. Rich Kohut of Martin Marietta (Space Division) was the featured speaker, presenting an excellent overview of their Engineering Process Improvement program. The program required an impressive commitment of staff and internal investment to improve the processes, training, and tools used in all aspects of engineering. Rich pointed out that Martin's metrics are indicating a significant increase in engineering productivity since the inception of the program. Rich also provided key insights into the challenges involved in initiating and managing a large process improvement program.

The second meeting was held on December 1, hosted by the Naval Undersea Warfare Center, at the Newport Beach Club in Newport, RI. Mr. Pete Liwski of General Dynamics, Electric Boat Division, gave an excellent presentation on a Concurrent Engineering approach for the New Attack Submarine (NASSN). Pete explained how the ten principles of Concurrent Engineering were being applied to the building of the nation's next generation of attack submarine. Pete's inviting talk prompted several questions and a highly interactive discussion on the challenges involved in applying principles to such a large project.

The next Chapter meeting will be held on January 19, 1995, hosted by the MITRE Corporation in Bedford, MA. The featured speaker will be Dr. John Ehrenfeld, Senior Research Associate at the MIT Center for Technology, Policy and Industrial Develop-

ment. Dr Ehrenfeld will discuss the systems engineering challenges faced by large environmental clean-up projects.

The '96 Symposium planning process, under the direction of Don Neuman, is moving into high gear, with key decisions such as the symposium theme and preliminary technical tracks being chosen for presentation to the Board of Directors at the Winter Business Meeting.

## North Star Emerging

Dave Walden

A new chapter of NCOSE is being formed, based in the Twin Cities, to serve members in Minnesota, North Dakota, South Dakota, and western Wisconsin. Interested members have been working with Nancy Rundlet of Zycad and the NCOSE National Local Chapter Affairs Committee to form this new chapter.

The North Star Emerging chapter held its first organizational meeting on November 21, 1994. Attendees from industry included Computing Devices International, Secure Computing Corporation, United Defense LP, and a consultant. Attendees from the University of Minnesota and U S Department of Agriculture represented academia and government, respectively. It was at this meeting that North Star was chosen as our chapter name. We also appointed several interim officers and chairs and discussed start-up plans and schedules.

The group set an ambitious schedule, with a charter banquet planned for May, 1995. Our next organizational meeting was held December 15, 1995, and we hope to have our first membership meeting in January 1995. Immediate concerns include building chapter membership, establishing company ambassadors, and drafting the documentation required for the petition package. Please forward names of potential members, organizational contacts and questions, to Dave Walden (phone (612) 921-6469, David D Walden@cdev.com, fax (612) 921-6869).

## Midwest Gateway

Dean Bristow

Bob Scheurer has established a World Wide Web (WWW) home pages for the 1995 Symposium and for our chapter. For web browsers, the Symposium address is [http://midwest\\_ncose.mdc.com:2000/symp\\_home.html](http://midwest_ncose.mdc.com:2000/symp_home.html). The chapter information can be reached at [http://midwest\\_ncose.mdc.com:2000/midwest\\_home.html](http://midwest_ncose.mdc.com:2000/midwest_home.html). The Symposium information will be updated on a regular basis to reflect changes in events, schedules, speakers, and other items of interest to potential attendees.

The Midwest Gateway Chapter is looking forward to hosting the 1995 Symposium from Monday, July 24 through Wednesday, July 26. Nearly 200 papers have been reviewed and accepted for presentation. Voting during the Symposium will determine the "Three Best Presentations," which will be repeated to a larger audience at the Wednesday Plenary Session.

Dr Ken Sievier and Dr J Holtzman are organizing the Academic Workshop to be held Sunday, 23 July. Dr Aaron Shenhar, who organized the excellent 1994 Academic Workshop, has graciously agreed to help in the arrangements.

In December, the Midwest Gateway Chapter was pleased to

sponsor an excellent lecture program by Richard Schmidt of Ascent Logic and Mack Alford on Commercial Quality Standards, particularly ISO-9000 and IEEE P 1220. Many of the forty systems engineers in the audience work in the defense industry, and the presentation was an outstanding overview of changes to come as DoD transitions to commercial practices and standards.

## Washington Metropolitan Area

Joe DeFoe

In October we had our annual election for a number of offices. Newly elected for 1995 are Vice President (President-Elect) Art Pyster, Director-at-Large Jim Armstrong, and incumbent Treasurer, Dave Connor. Our president for 1995 will be the 1994 Vice-President, Jim McAuley. Continuing in office for the second year of their two-year terms will be Secretary, Joe DeFoe, and Director-at-Large, Larry Pohlmann. Sarah Sheard has agreed to be our programs chair for the indefinite future.

We meet every other month and since April have been combining a program with 45-minute topic table discussions. Signs indicating the topics of Systems Engineering Process, Standards, Metrics and Benchmarking, and Tools are set up before dinner so that discussions can begin even before the program. At the end of the meeting, each table presents highlights of their results to everyone.

Our chapter has about 175 members. We have bimonthly dinner meetings that typically draw 35-40 people. We hope to increase this in 1995 by experimenting with a variety of programs and meeting locations.

## Space Coast

Sue Dyson

The SCC holds their chapter meetings on the first Tuesday of every month at the Officer's Club at Patrick AFB, FL. Each meeting features a speaker or forum as well as a business meeting.

One of our most productive and fun meetings consisted of several informal round table discussions and a wine-and-cheese buffet. The format worked great! Members from each round table shared system engineering problems encountered in their daily work. Other members offered strategies for solving each problem. Each round table documented the problems addressed, then presented to the meeting at large. An award was given for the best problem solution. Some of the problems discussed were "How do you measure where a project is when it is between milestones, without micro-management?", "How to transfer SE best practices developed in a DoD environment into commercial development?", and "How do you respond to managers who over-emphasize process and not creativity?"

For the December meeting, the featured speaker was Shawn O'Donnell of Harris Corporation Air Traffic Control Systems Division. Shawn presented one of the training packages created by NCOSE members, "Making Integrated Product Teams Work in Practice." This package was presented at the National Symposium in July. These packages provide a benefit for NCOSE members in facilitating efficient instruction of advanced systems engineering topics.

## 1995 NCOSE Officers & Board of Directors

**President:** Jim Brill, (408) 372-2473  
**President Elect:** Gimmy Lentz, (30 1) 493- 1440  
**Past President:** George Friedman, (3 10) 20 1-33 11  
**Secretary:** Joe DeFoe, (30 1) 493-1451  
**Treasurer:** Barney Roberts, (713) 333-0190  
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### Region I: Northwest

Govt./Academia: Scott Iverson, (206) 543-5398  
 Industry: Rich Mintz, (206) 394-4820

### Region II: Southwest

Govt./Academia: Wayne Wymore, (602) 299-6663  
 Industry: John Olsen, (408) 924-4 150

### Region III: Central

Govt./Academia: Julian Holtzman, (913) 864-7759  
 Industry: Dorothy Kuhn, (2 14) 575-2648

### Region IV: Northeast

Govt./Academia: Stan Weiss, (6 17) 253-3537  
 Industry: James Martin, (201) 386-4485

### Region V: Southeast

Govt./Academia: Wolt Fabrycky, (703) 23 1-6 147  
 Industry: Larry Pohmann, (703) 847- 1115

**Directors-at-Large:** Jerry Lake, (703) 75 1-7987

**CAB Chair:** Marty Ross

## Call for Papers: Work-in-Progress Papers for '95 Symposium

Bill Schoening

The 1995 Symposium will provide a forum for discussing true work-in-progress. A limited number of presentation slots are available for relevant systems engineering topics. Presentations will last 25 minutes, including questions. Papers will not be published, but may be handed out by presenters. Abstracts are not to exceed one page and should clearly indicate why the material is considered work-in-progress. Send materials to Bill Schoening no later than March 1, 1995.

Notification of acceptance will be made by mid April. Send abstracts with title, authors, phone, fax, and internet address to: Bill Schoening, 2 Mosley Acres, St. Louis, MO 63 141; fax (3 14) 777-1 139; [schoening@mdafltsim.mdc.com](mailto:schoening@mdafltsim.mdc.com).

## Local Chapters

Chapter Name Region/State	Contact	Telephone Fax
<i>Seattle Metropolitan</i> I/ Washington	K. Peterson	(206) 657-2776 (206) 657-007 1
<i>Tri-Cities / Richland</i> I/Washington	M. Simpson	(509) 375-4539 (509) 375-6417
<i>San Francisco Bay</i> II/ Sunnyvale Calif	R. Olson	(4 15) 966-3524 (4 15) 966-2585
<i>Inland Empire</i> II/San Bernardino CA	A. Vickers	(909) 862-0635 (909) 862-0635
<i>San Diego</i> II/ California	S. Bertic	(6 19) 536-8743 (619) 536-8743
<i>Southern Arizona</i> II/ Tucson Arizona	W. Wymore	(602) 299-6663 (602) 299-6663
<i>Central Arizona **</i> II/ Phoenix Arizona	J. Sivak	(602) 585-6849 (602) 585-7726
<i>Los Angeles • *</i> II/ California	J. Jameson	(3 10) 336-5035
<i>Colorado Sprngs</i> III/ Colorado	W Money	(719) 594-1468 (7 19) 599-3370
<i>Midwest Gateway</i> III/St. Louis Missouri	D Bnstow	(314) 232-7166 (3 14) 234-6934
<i>Texas Gulf Coast</i> III/Houston Texas	G. Moorman	(7 13) 333-6422 (713) 333-7620
<i>North Texas</i> III/Dallas-Ft. Worth TX	J Nallon	(2 14) 669-9937 (214) 669-9938
<i>Liberty / Rockaway</i> IV/ NJ, NY, PA	B. Miller	(201) 386-5339 (201) 386-6923
<i>Tri-State / Detroit</i> IV/ Michigan	J. Bedocs	(313) 390-9100 (3 13) 337-9572
<i>New England</i> IV/ Boston Mass	B. McCay	(617) 271-5727 (617) 271-5309
<i>Washington Metro</i> Vi Washington DC	J. McAuley	(301) 240-6210 (301) 240-6073
<i>Chesapeake</i> V/ Baltimore Maryland	M. Walker	(410) 850-0070 (4 10) 850-0404
<i>Huntsville</i> V/Alabama	H. Sachs	(205) 46 1-3994 (205) 461-2787
<i>Space Coast</i> V/Melbourne Florida	T. Kabaservice	(407) 729-3278 (407) 727-67 18
<i>Orlando • *</i> VI Florida	T. Remenick	(407) 826-1 777 (407) 826-6891
<i>United Kingdom • *</i>	D. Hitchens	(0793) 785225 (0793) 782179

\*\* Chapters are newly formed or awaiting final certification.

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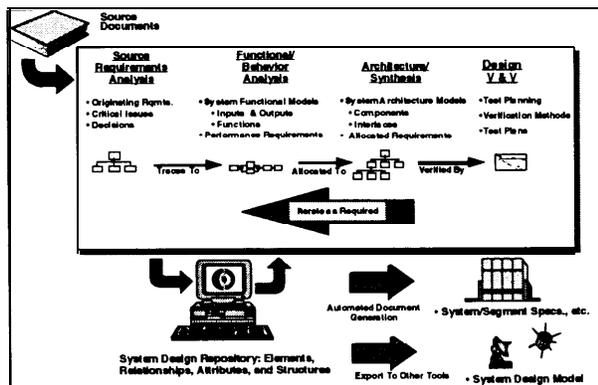
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# GENERAL INFORMATION

## How to Make a Good Presentation at NCOSE

Sarah Sheard

This is the second of two articles; in the last issue of *INSIGHT* I discussed how to write a good paper. Now that your paper has been accepted and you are preparing the presentation, you might be interested in the following hints. Again, please send any comments or additional hints you might have to sheardsarah@lfs.loral.com

Just as a good system starts long before the first metal is cut or line of code is written, a good presentation starts before the talk. The times are short, just 20 or 30 minutes to talk about something that probably took months or years to develop. For maximum benefit, cover only one to three points in your talk and leave the rest to your paper or to follow-up conversations with those who are interested.

*Simplify your charts.* In a paper, a family of parametric curves may work well, but your audience hasn't seen the charts before this presentation. I have heard that you should remove from your charts every single word or symbol that you don't expect the audience to grasp in the minute or so that the chart is displayed. In the past, this meant lots of white-out on the charts that you used for your paper; today we can digitally delete.

*Use lots of examples.* Although people have time to read and re-read your paper in order to understand it, listening to a presentation is a very linear activity. If they take extra time thinking about your first comment, they will not hear the second. That is why you should repeat yourself. Ideally, this repetition will come in the form of real examples. First, examples are more **fun** to hear than theory, and second they are easier to remember. Most important, though, they help people understand your point.

*After you have written your presentation, practice it.* First, you need to get your timing to match the allotted time. Second, people that you ask to practice with you will make valuable suggestions on what to add, delete or change. It truly improves your talk. Finally, it helps reduce your own nervousness if you are prepared.

Practice the beginning and end in particular. A strong beginning gets you off on the right foot and makes the audience eager to hear more. A strong ending leaves no doubt about the point you tied to make, and signals unambiguously that it is now time for questions.

*Tune up your inter&aces.* The best presenters seem to take special care in preparing bridges from one chart to the next.

Now, it is time for the presentation. Aside from your speech, what else do you want to remember?

*Be yourself: Show your enthusiasm.* You really liked something about this; otherwise you wouldn't have written about it. What did you learn or enjoy? Be sure your excitement gets across. This makes your talk lively and interesting.

If you find it necessary to calm down, take deep slow breaths while the speaker before you is talking. This helps to relax. Another tip is to focus on a friendly face and try to talk to that single person. I find it helps to remind myself I am there to do the audience a favor. They need to hear this and want to hear this, or they wouldn't be here to listen to your presentation. This point of view helps me be less nervous as I am focusing on them and what they need to know rather than on my own performance.

To help people see your charts, stand alongside the screen, not in front of it or the projector. Use your own expandable pointer or one supplied by the symposium (I always bring my own just in case). Ask a friend to flip charts for you so that your body is not blocking the view of any audience members.

Finally, even though they say to "tell 'em what you're going to tell 'em, tell 'em, and tell 'em what you told 'em," there is no rule saying you have to tell them the same way. Leave some mystery. You might say, "I'm going to conclude with a recommended action," rather than telling them in the introduction what the action is. You might say something that sounds preposterous. But, once they have listened to your talk, they will see it is true. Explain that your talk will show them that what sounds preposterous at first is, indeed, true. This adds the excitement of "I dare you to not believe me."

## Internet Update

Bill Schoening

**NCOSE INTERNET DIRECTORY** The number of NCOSE members listed in the Internet (formerly e-mail) Directory has grown to over 782. Another 300 members indicated that they want to be included in the Membership Directory when they returned their membership update forms to Barney Morais in September. However, not all have been contacted and responded for verification of the Internet address. If you have not received a NCOSE Internet Directory since late November via Internet, send me a message asking to be included.

To ease the workload for distributing Internet messages to the membership, Internet points of contact (POCs) who forward e-mail to their chapter members are being established. Current Internet POCs are: George Muncaster for Central Arizona, David Isaac for Chesapeake, Bill Miller for Liberty, Pat Hale for New England, John Nallon and Mark Sampson for North Texas, Lew Lee for San Francisco Bay, Tom Holland for Seattle Metro, Harrison Goodkin and Anne McBride for South Arizona, Sam Harbaugh for Space Coast, Al Sexton for Texas Gulf Coast, Mary Simpson for Tri-Cities, Dona Lee for Washington Metro, Dave Walden for North Star, and Bill Schoening for Midwest Gateway.

**BULLETIN BOARD** The NCOSE Bulletin Board at CECASE has been discontinued for lack of use. See Pat Hale's article on World Wide Web (next article) for what is being proposed as an alternative.

**SYSTEMS ENGINEERING LIST SERVE** The SE list serve at majordomo@world.std.com was discontinued, and is being restarted elsewhere. To get information on the new list serve, send a message to listserv@netcom.com with HELP in the first line of the message body.

## NCOSE Comes to the Internet

Pat Hale

An NCOSE presence on the Internet is a key goal for the Communications Committee in 1995. The explosive growth in Internet use has created the largest forum in the world for reaching a technically-adept audience with information and promotional messages. Utilities such as Gopher, News Readers, Anonymous FTP, and World Wide Web browsers such as Mosaic make the Internet's information easily accessible, and commercial providers offer affordable "full service" Internet connections to individuals and organizations in all parts of the world.

The fastest-growing Internet service (10,000 new users per month in 1994) is the World Wide Web (WWW, or "the web"), which provides point and click hypertext-linked convenience for finding and retrieving information in a large number of categories, including information from most prominent engineering professional societies. The cornerstone for NCOSE's Internet presence will be a "home page" on the web, providing instant access to the NCOSE charter, key national and local contacts, and membership application information. In addition to general NCOSE information, a library of key Systems Engineering documents (or pointers to hard copy) will be catalogued on line, and private forums for committees and working groups are planned, allowing world-wide "groupware" features (mark-up and discussion of draft products, etc.) to enhance productivity.

For those members who do not have a connection with "web" bandwidth capability (generally, the minimum is a 9600 baud SLIP or PPP dial-up connection), Gopher and anonymous FTP services will be provided. These utilities are accessible with slower connections, and are becoming common as the special Internet connectivity utilities on traditional on-line services such as America On-line and CompuServe.

In planning an NCOSE Internet presence, other options, such as "list servers", have been considered, and tentatively rejected, for several reasons. A number of other Systems Engineering lists are currently available, and the ability to present a unique, professional NCOSE image is facilitated by using the graphics capabilities of the web, backed up by the point and click navigation of both web and Gopher clients.

Since this will be *your* NCOSE presence, your thoughts and desires are wanted, and will be accorded great weight in the final shaping of NCOSE's Internet "front door". Please

send comments, ideas, and requests to Pat Hale via e-mail at phale@draper.com, fax at 617-258-4100, or "old-fashioned" voice at 617-258-4942. Plans are being made to secure Board of Directors approval at the Winter Business Meeting, so make your voice heard soon. See you on the Internet!

## NCOSE via CompuServe?

Derek Hatley

In the September issue of *INSIGHT*, Bill Schoening suggested that members communicate over the Internet. For members who have accounts there, it might also be useful to start a NCOSE section or forum on CompuServe. The Sysops on CompuServe's CASEForum (GO CASEFORUM) are willing to share one of their existing sections, but the success of the idea would depend on the number of you that respond, and how much you participate. If participation is high enough, then a separate NCOSE section could be justified (there are unused sections available on CASEForum). This would be an entirely voluntary and informal activity, not requiring or implying the endorsement of NCOSE.

If you are interested, send a message on CIS to: Derek Hatley, 74710,1437. I will report in later issues of this newsletter how this effort is going. Who knows --- maybe some of you will decide to open CompuServe accounts just to join in the fun!

## A View from CECASE

Scott Woodward

At the Center for Excellence in Computer Aided Systems Engineering (CECASE) we work with small- to medium-sized companies. Some of these companies work in the computer-based system field and others do not. If we went to them with SE process that came straight from a DoD contractor they would laugh us out of the building.

With the push to become more competitive, commercial companies must change the way they currently operate. SE can provide benefits to companies of all sizes. However, the degree of formality and depth of detail in the application of SE tasks is likely to vary based on the size of the company, the products they develop, the services they provide, and the culture of the company itself, amongst other factors. We are attempting to work on a process that brings the needed elements of the SE process, but allows flexibility in their application. This effort is using Dave Oliver's work on a tailorable process and on using models and objects. Dave presented this work at NCOSE 1994 in both a tutorial and a paper.

I hope the people who are working on a classification model continue to push for it, especially through NCOSE, which is in a position to greatly affect the application of SE in the commercial sector. The classification model does not need to get stuck with pushing defense methods only. Demands on the commercial sector vary from those in the defense sector, and companies are likely to turn away from something that has DoD written all over it. This is not to say that we cannot learn from

what has been done by DoD, but we should practice what we preach and make sure the eventual users get a process that works for them.

## Conference Highlights: New Processes and Technology at GM-Hughes Electronics

Steven Roth

The first significant rain of the season clogged the Los Angeles freeways leading to El Segundo. Yet, there was a steady flow of information from the Building El Events Center to the local audience, as well as to seven remote broadcast sites via satellite. The GM-Hughes Fifth Annual Software and Systems Engineering Conference and Workshops was in progress (Nov. 8-9, 1994).

Dr. Art Chester started things off with an interesting discussion of the changing global marketplace. He pointed out the advantage of transitioning from natural resource intensive products to information/algorithm/programming intensive products, something that systems and software engineers excel at developing. Terry Snyder, in his introductory speech on the Hughes Software Technology Network, talked of the merging of Software and Systems Engineering. He noted that in the new Hughes Radar and Communications Systems Segment, Systems and Software are combined at the division level, acknowledging a growing commonality. Gary Miller provided an overview of the Hughes Systems Engineering Network (SEN) objectives and accomplishments, such as the Systems Engineering Handbook, the CASE Tools Directory, the SEMP Template, and the SE Methodology Process.

The keynote talks by both Grady Booch and Dr. Jerry Lake were well received by the audience. Grady covered some of the pathways and pitfalls leading through Object-Oriented Design (OOD). While OOD can be successfully employed even for extremely large, real-time system — it is imperative that both the right tools be used and the proper approach for using the tools be followed. Dr. Lake shared his insight into the confusing and rapidly changing maze of standards and specifications. Currently, each program seems to have its own unique set of “standards.” The good news is that things should be getting simpler as the military shifts to a more “deregulated” mode of operations. Commercial (both national and international) standards should eventually cover top level issues like design methodology, documentation and requirements verification. However, there will always be some specialized requirements that are product specific.

Subsequent Hughes speakers maintained the presentation quality set by Mr. Booch and Dr. Lake, filling out the rest of the day on a variety of topics. Two topics that I found particularly interesting dealt with electronic co-location. The

RASSP effort (ARPA-funded rapid Prototyping of Application Specific Signal Processors Program) has Integrated Product Teams (IPTs) composed of members from different companies across the country. Team members are using the Internet and other electronic links to enhance communication for both real-time applications and bulletin boards. Hughes Network Systems, on the other hand, combine software development activities spread among California, Maryland, England, and India. Both of these presentations emphasized the dynamic and interesting aspect of Systems and Software Engineering as they continue their rapid evolutionary process. A video tape that was made of all the presentations, and we hope to have an electronic copy of the viewgraphs available on the SEN server.

*Steven Roth is a scientist engineer at Hughes developing Electronic Warfare systems within the new combined Radar and Communications Systems Segment.*

## Reviewing Papers for the 1995 Symposium

Bill Schoening

In preparation for the 1995 Symposium in St. Louis, 193 draft papers were received by the 1995 Symposium Planning Committee and reviewed by the Technical Working Groups. Acceptance letters will be sent out in January. As a result of our experience, I would like to pass along some helpful hints to authors that will make paper reviews easier for future symposium committees. First, number the pages of the draft and include the total page count on each page (e.g., 2 of 7). Second, include the title (but not your name) on each page. We needed help when we dropped papers or the copier got hungry. Finally, if names of authors are limited to a cover page, the workload required to hide those names from the reviewers is reduced substantially.

Speaking for the Symposium Planning Committee, we enjoyed reading the drafts, and would like to thank the authors for their professional approach and care taken in preparation.

## Submitting Book Reviews

James Sanchez

Would you like to share your views on a recent book related to systems engineering? Then, write a review for *INSIGHT*. The review should include a catchy byline to attract the reader's attention, and a one- to three-sentence first paragraph that entices the reader further. In the body of the review, include the title of the book, the name of the author, the publisher, the suggested price for a single copy of the book, the number of pages in the book, the name of reviewer, and 15-60 words about the reviewer. Due to space limitations the Book Review must be limited to 1/2 page of *INSIGHT*. Due to cost constraints, the reviewer bears the responsibility of purchasing the book. See box on page 3 for contact information.

## Book Reviews

### *System Requirements Analysis*

By Jeffrey O. Grady

McGraw-Hill, 1993, 498 pages, \$55.00

Reviewed by Dr. Jerry Uhrig

Jeff Grady is no dilettante. I've met him — he's a gentleman, a scholar, and an engineer. His book reflects a long career experience in aerospace systems engineering for the DoD/NASA market.

This book makes two major contributions. It stands as perhaps the only really accessible discussion of the evolution and spirit of military systems engineering standards (Chapters 1-2). Also, it provides genuine insight into problems which arise in trying to map structured processes onto real organizations with real people.

The book also has some shortcomings. Tangible, physical mechanisms are emphasized rather than abstractions. At times, this seems to include software, especially in discussions of interfaces. Analysis is also sparse, since a hundred pages go by before an equation is seen. Likewise, perfunctory treatments are given to mathematical programming, statistics, and queueing analysis.

Another major blind spot is appreciation for what was happening to the evolution of systems engineering as a discipline during the time Mr. Grady was plying his trade. Mr. Grady writes on page 255, "While many hardware system engineers were letting our accumulated knowledge of system technology slip through their fingers over the period of the 1960s through the 1980s..." So, accept that Mr. Grady has not spent much time with Andrew Sage or John Warfield. He may have looked into Ben Blanchard a bit, but he doesn't say so. When Mr. Grady speaks of structuring, it's strictly from the view promulgated in recent years by software engineers, and with no appreciation of the extensive work in structured modeling and analysis pursued by those working on the disciplinary side of systems engineering through the 1970s.

Chapter 3 is a paint-by-numbers style cookbook on how to write-a-requirement. Try it, you'll like it. The heart of the book is in Chapters 7-9 which cover Structured Analysis, Product Performance and Programmatic Requirements Analysis, and Product Design Constraints Analysis.

Structuring to Mr. Grady is mainly divide and conquer. He is pragmatic on this point. Total Quality Management is covered reasonably well in Chapters 10-12 including a notable reference to American Supplier Institute, but he stops a little short of taking TQM into the systems engineering mainstream.

In my opinion, the editors at McGraw-Hill should have done better on this book. It has too many glitches. Secondly, this style of systems engineering will have no place in commercial ventures.

### *Reengineering the Corporation: A Manifesto for Business Revolution*

By Michael Hammer and James Champy  
HarperBusiness, 1993, 225 pages, \$13.00,  
paperback

Reviewed by Elizabeth Clark

Reengineering is the hottest management concept since the quality movement. While some skeptics claim that reengineering is a euphemism for laying people off, the authors define the term as "the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service, and speed." Downsizing and restructuring mean doing less with less; reengineering, on the other hand, means doing more with less. As Systems Engineers, we may work for corporations that are reengineering their processes and some of us may be performing process reengineering.

*Reengineering the Corporation* provides the reasons reengineering is important and it provides how-to information for practitioners.

Hammer and Champy define a business process as "a collection of activities that takes one or more kinds of input and creates an output that is of value to the customer." Traditional processes are based on the model that people work more efficiently when they have only one easily understood task to perform. However, simple tasks demand complex processes to knit them all together. In reengineering, processes are kept simple to meet the contemporary demands of quality, service, flexibility, and low cost. In reengineering, information technology acts as an "essential enabler." As Systems Engineers, we should be cautious; throwing computers at an existing business problem does not cause the process to be reengineered. Say the authors, "automating existing processes with information technology is analogous to paving cow paths." Hammer and Champy claim that applying information technology to business process reengineering requires inductive thinking, namely, the ability to first recognize a powerful solution and then seek the problems it might solve.

Many organizations that begin reengineering don't succeed. While reengineering is often unsuccessful, it is not a high-risk endeavor, say Hammer and Champy. Successful reengineering efforts produce "quantum leaps in performance." *Reengineering the Corporation* contains several case studies of successful efforts, as well as a catalogue of the most common errors that lead organizations to fail at reengineering.

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## The Journal of the NCOSE

Jeff Grady, Editor

The inaugural issue of the Journal has been mailed to all NCOSE members living in the USA. You should have received the Journal by the time you receive this newsletter. Members living outside the USA will receive their copy from Barney Morais of NCOSE headquarters. Additionally, more than two thousand extra copies are available for purchase from Barney (see box on page 3 for contact information).

Board policy, decided in San Jose, stated that this initial issue would be provided at no additional cost to the membership. This cost policy for subsequent issues will be addressed at the Houston Business Meeting.

Thanks to all of the authors for their contributions. Thanks also to the special initial issue reviewers, who are identified in the Journal. Work now begins on the two issues we hope to publish in 1995. Because an associate editor staff is not completely formed at this time, you may submit your papers by mail (Jeff Grady, 6015 Charae Street, San Diego, CA 92122), fax (619) 458-0867, or e-mail (jgrady@ucsd.edu). Refer to the information in the initial issue of the Journal for instructions on submitting your papers.

Please forward ideas on how to improve your Journal. You are, after all, the customer. You are also the authors for this enterprise, so don't hold back from publishing your ideas in upcoming issues.

## Send your Chapter Reports

James Sanchez

**Chapter presidents, let the world know about your local chapter!** Use *INSIGHT* as your means of communicating to NCOSE's members. Submit your 150-200 word article that includes accomplishments and recent events. Also, include upcoming dates, speakers, topics, place, time, and contact

(name, phone, e-mail) for the *Calendar of Events*.

In addition, forward Chapter newsletters so that articles that are of interest to our readers can be included. The *INSIGHT* editing staff will gladly review and cull articles for future issues.

Chapter reports are due by February 28 for the March issue. A name, e-mail address and/or telephone number must be sent with the material. Electronic mail is graciously accepted and preferred. See page 3 for contact information.

## Your Advertisement Here!

The NCOSE *INSIGHT* will include your advertisement as a service to our readers. There will be a charge for ads other than employment. The revenue generated will be used to offset the cost of producing and distributing this newsletter. Ad sizes and prices are as follows:

Full Page:	9" by 7½"	\$800
Half Page:	4½" by 7½"	\$500
Quarter Page:	4" by 3½"	\$300
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Ads sufficient to fill the "ad pages" will be accepted on a first come first serve basis. Submissions are preferred in one of the following formats: Word 3.0, ASCII, CorelDraw 4.0. or print-ready hard copy. Electronic copies should be sent on a 3½-inch floppy formatted for IBM PCs. (When in doubt about word processor or graphics formats, save several versions on the same floppy, with ASCII preferred for text-only inputs.)

You can "reserve a spot" by sending an e-mail note or calling the editor. Indicate name, phone number, and ad size requested. Your input (with check payable to NCOSE) must be received NO LATER THAN February 21 to be included in the March issue. NCOSE reserves the right to refuse any ad and will refund full payment. See box on page 3 for contact information.

**NCOSE *INSIGHT* Challenge!** If you have an original cartoon (your own, of course) that you would like to see published, send it to the editor for consideration. Please ensure that your entry is professional and pertinent to systems engineering. Our goal is one cartoon per issue. Thanks to Stan Long for his contribution!

### SYSTOON/by Stan

